

Claims

1. System for producing and coating an object (5, 21), comprising a manufacturing machine and an object treatment device wherein said object treatment device comprises a painting station (8, 30) with means for applying a coating to a surface of said object, at least another station (9, 10, 11, 12, 31, 32) for treating said object and a conveyor (4, 23) which allows to move said object (5, 21) between said stations (7, 8, 9, 10, 11, 12, 29, 30, 31, 32), **characterized** in that said object treatment device is located within an enclosure (3, 22) comprising means (24, 25) to create a controlled atmosphere within said enclosure (3, 22) and wherein said manufacturing machine is located outside said enclosure (3, 22).
2. System according to claim 1, characterized in that said manufacturing machine is an injection moulding machine, an extrusion moulding machine, a rolling mill, or a metal pouring machine.
3. System according to any of claims 1 to 2, characterized in that said conveyor comprises a conveyor belt (23) or a turnable tool (4).
4. System according to any of claims 1 to 3, characterized in that said means for applying a coating to a surface of said object (21) comprise a movable spray head.
5. System according to any of claims 1 to 4, characterized in that said object treating device further comprises at least one of a UV treatment station (10, 32) with a UV radiation source (14), a milling station (34), a printing station and an assembling station.
6. System according to any of claims 1 to 5, characterized in that said means for applying a coating to a surface of said object comprise a spray gun, preferably a moveable spray gun, a tampo-printer or a transducer.
7. Method for producing and coating a moulded object (5, 21), comprising the steps of
  - producing said object (5, 21) in a manufacturing machine
  - moving said object (5, 21) to an object treating device, which comprises a

painting station (8, 30) and at least an other station (9, 10, 11, 12, 31, 32) for treating said object,

- applying a coating to a surface of said object in said painting station (8, 30)
- moving said object (5, 21) from said painting station (8, 30) to said other station (9, 10, 11, 12, 31, 32)

**characterized** in that

said object treating device is located within an enclosure (3, 22) and that said object (5, 21) is coated and treated in a controlled atmosphere and that said manufacturing step is performed outside said enclosure (3, 22).

8. Method according to claim 7 characterized in that said object is produced by injection moulding, extrusion moulding, rolling mill or by metal pouring.

9. Method according to any of claims 7 or 8 characterized in that said coated object (5, 21) is UV treated in an inert gas atmosphere, preferably in a nitrogen and/or carbon dioxide atmosphere.

10. Method according to any of claims 7 to 9 characterized in that said object (5, 21) is coated and treated in an atmosphere with a total dust content of less than 1000 particles above 0,5 micron per cubic foot, preferable less than 150 particles per cubic foot.

11. Method according to any of claims 7 to 10 characterized in that at least one of said steps of coating and treating said object is performed in an atmosphere having a low and controlled oxygen content, preferably less than 500 ppm, more preferred less than 100 ppm.

12. Method according to any of claims 7 to 11 characterized in that said object (5) is provided with a mask prior to said coating step.

13. Method according to any of claims 7 to 12 characterized in that in said coating step lacquer or paint is atomized with an inert gas (16) and sprayed to said object (5, 21).

14. Method according to any of claims 7 to 13 characterized in that said object (5, 21) is moved from said painting station (8, 30) to said other station (9, 10, 11, 12, 31, 32) by a conveyor, preferably by a conveyor belt (23) or a turnable tool (4).
- 5 15. Method according to any of claims 7 to 14 characterized in that objects (5, 21) with different geometrical shape are moved from said painting station (8, 30) to said other station (9, 10, 11, 12, 31, 32).